IN THE CLAIMS:

1.   (Currently Amended)   A system for using Dynamic Host Configuration Protocol (DHCP) address assignments to determine a local destination address of a received packet in a Network Address Translation (NAT) environment, the system comprising:

a DHCP server to assign local Internet Protocol (IP) addresses to devices on a local network in response to an IP address request in the form of a DHCP packet sent by a device on the local network, the request packet containing in the options field a symbolic name of the device;

a remote network, wherein the local IP addresses on the local network are not directly accessible to devices on the remote network;

a NAT device to translate addresses from the remote network to the local network;

a packet device to:

receive packets from the remote network; and

receive packets from the devices on the local network, configured such that when it receives packets from devices on the local network, the packet device:

changes a source IP address of the packet from the IP address of the device on the local network to the IP address of the packet device, and

verifies that no other devices on the local network are already using the source port, and if another device is using the source port, the packet device assigns a new source port to the packet;

an addressing device to determine the local destination address of the packets received by the packet device, wherein the addressing device uses an association table

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created from symbolic names of the devices on the local network and the local IP

addresses associated with the devices, and the addressing device determines a

symbolic name of a destination address of a device from the packet, utilizes the

association table to determine the destination address of the packet <u>by correlating the</u>

<u>symbolic name of the device with the device's assigned IP address</u>, and <u>routes</u> [causes]

the packet to [be sent to] the destination address.

  2. (Original) The system of claim 1, wherein the packet device is a router.

  3. (Original) The system of claim 2, wherein the DHCP server is located

at the router.

  4. (Original) The system of claim 2, wherein the NAT device is located at

the router.

  5. (cancelled)

  6. (Currently Amended) A method of using Dynamic Host Configuration

Protocol (DHCP) address assignments to determine a local destination address of a

received packet in a Network Address Translation (NAT) environment, the method

comprising:

  assigning local Internet Protocol (IP) addresses to devices on a local network <u>in</u>

<u>response to an IP address request in the form of a DHCP packet sent by a device on</u>

<u>the local network, the request packet containing in the options field a symbolic name of</u>

<u>the device</u>;

  receiving packets from a remote network, where the local IP addresses are not

directly accessible to devices on the remote network;

  <u>receiving packets from the devices on the local network, and changing a source</u>

<u>IP address of the packet from the IP address of the device on the local network to the IP</u>

address of a packet device that receives packets from the devices on the local network, and verifying that no other devices on the local network are already using the source port, and if another device is using the source port, assigning a new source port to the packet;

executing translation of addresses sent from the remote network to the local network;

using an association table created from symbolic names of the devices on the local network and the local IP addresses associated with the devices;

determining the local destination address of the received packets by correlating the symbolic names of the devices with the devices' assigned IP addresses;

determining a symbolic name of a destination address of a device from the packets;

utilizing the association table to determine the destination address of the packets; and

routing [causing] the packets [to be sent] to the destination address.

7.   (Original)   The method of claim 6, wherein a router receives the packets.

8.   (Original)   The method of claim 7, wherein the router includes a DHCP server.

9.   (Original)   The method of claim 7, wherein the router includes a NAT device.

10.   (Cancelled)

11.   (Original)   The method of claim 6, wherein the remote network is an Internet.

12.   (Currently Amended)   An apparatus for using Dynamic Host

Configuration Protocol (DHCP) address assignments to determine a local destination

address of a received packet in a Network Address Translation (NAT) environment, the

apparatus comprising:

a name acquisition device to determine symbolic names of devices on a local

network;

an address acquisition device to determine local Internet Protocol (IP) addresses

of the devices on the local network, wherein the local IP addresses are not directly

accessible to devices outside the network, and wherein the IP addresses are assigned

to devices on the local network by a DHCP server in response to an IP address request

in the form of a DHCP packet sent by a device on the local network, the request packet

containing in the options field a symbolic name of the device;

a packet device to:

receive packets from the remote network; and

receive packets from the devices on the local network, configured such

that when it receives packets from devices on the local network, the packet device:

changes a source IP address of the packet from the IP address of

the device on the local network to the IP address of the packet device, and

verifies that no other devices on the local network are already using

the source port, and if another device is using the source port, the packet device

assigns a new source port to the packet;

a data transfer device to transfer data to a packet receiving device;

an addressing device to determine the local destination address of the packet

received by the packet device, wherein the addressing device uses an association table

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created from the symbolic names of the devices on the local network and the local IP

addresses associated with the devices; and the addressing device determines a

symbolic name of a destination address of a device from the packet, utilizes the

association table to determine the destination address of the packet by correlating the

symbolic name of the device with the device's assigned IP address, and routes [causes]

the packet to [be sent to] the destination address.

13.   (Original)   The apparatus of claim 12, wherein the packet receiving

device is a router.

14.   (Original)   The apparatus of claim 13, wherein a DHCP server is

located at the router.

15.   (Original)   The apparatus of claim 13, wherein a NAT device is located

at the router.

16.   (Cancelled)

17.   (Currently Amended)   A system for initiating an Internet Protocol (IP)

telephony session over a local network, comprising:

an IP telephony device;

a packet device to:

receive packets from a remote network; and

receive packets from the devices on the local network, configured such

that when it receives packets from devices on the local network, the packet device:

changes a source IP address of the packet from the IP address of

the device on the local network to the IP address of the packet device, and

verifies that no other devices on the local network are already using

the source port, and if another device is using the source port, the packet device

assigns a new source port to the packet;

a DHCP server to assign local IP addresses to devices on the local network in

response to an IP address request in the form of a DHCP packet sent by a device on

the local network, the request packet containing in the options field a symbolic name of

the device, wherein the local IP addresses are not directly accessible to devices on the

remote network;

a NAT device to execute network address translation;

an association device to create an association table from symbolic names of the

devices on the network and the local IP addresses associated with the devices; and

an addressing device to determine, based upon the association table, a local

destination address of each of the packets received by the packet device by correlating

the symbolic name of the device with the device's assigned IP address, and to route

[cause] each of the packets to [be sent to] the local destination address.

18.   (Original)   The system of claim 17, wherein the packet device is a

router.

19.   (Original)   The system of claim 18, wherein the DHCP server is located

at the router.

20.   (Original)   The system of claim 18, wherein the NAT device is located

at the router.

21.   (Currently Amended)   An addressing device to use Dynamic Host

Configuration Protocol (DHCP) address assignments to determine a local destination

address of a received packet in a Network Address Translation Environment,

comprising:

a computer-readable medium; and

a computer-readable program code, stored on the computer-readable medium,

having instructions which, when executed, cause the addressing device to

assign local Internet Protocol (IP) addresses to devices on a <u>local</u> network

<u>in response to an IP address request in the form of a DHCP packet sent by a device on</u>

<u>the local network, the request packet containing in the options field a symbolic name of</u>

<u>the device,</u>

execute network address translation,

receive remote packets from a remote network, where the local IP

addresses are not directly accessible to devices on the remote network,

<u>receive packets from the devices on the local network, and change a</u>

<u>source IP address of the packet from the IP address of the device on the local network</u>

<u>to the IP address of a packet device that receives packets from the devices on the local</u>

<u>network, and verify that no other devices on the local network are already using the</u>

<u>source port, and if another device is using the source port, assign a new source port to</u>

<u>the packet;</u>

utilize an association table created from symbolic names of the devices on

the network and the local IP addresses associated with the devices, and

determine the local destination address of the packets received by the

addressing device <u>by correlating the symbolic name of the device with the device's</u>

<u>assigned IP address;</u>

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cause the addressing device to determine a symbolic name of a destination address of a device from the packets;

utilize the association table to determine the destination address of the packets; and

route [cause] the packets to [be sent to] the destination address.

22.   (Previously Amended)   The addressing device of claim 21, wherein the addressing device is a router.

23.   (Original)   The addressing device of claim 22, wherein the router includes a DHCP server.

24.   (Original)   The addressing device of claim 22, wherein the router includes a NAT device.

25.   (Cancelled)

26.   (Original)   The addressing device of claim 21, wherein the remote network is an Internet.